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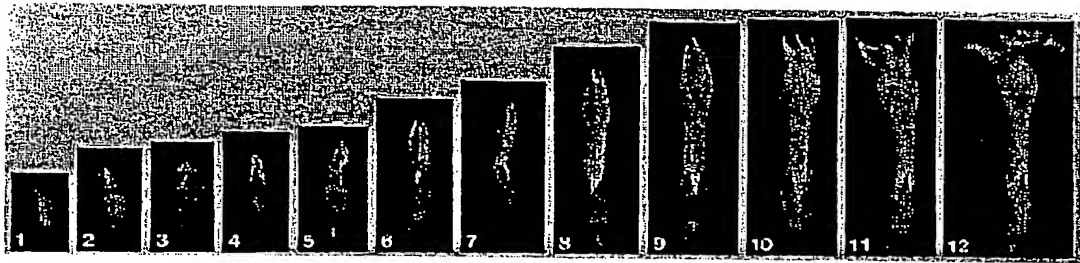
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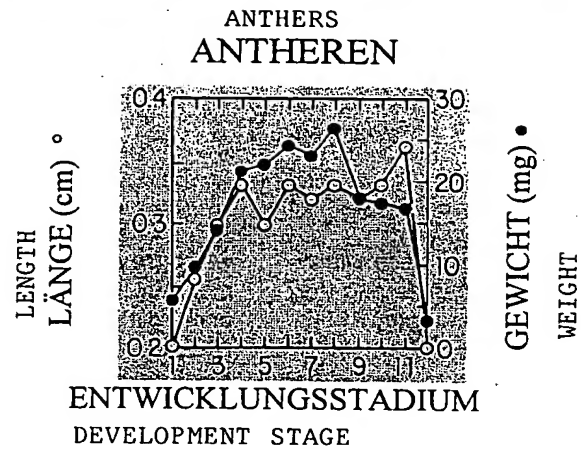
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Fig. 1

A

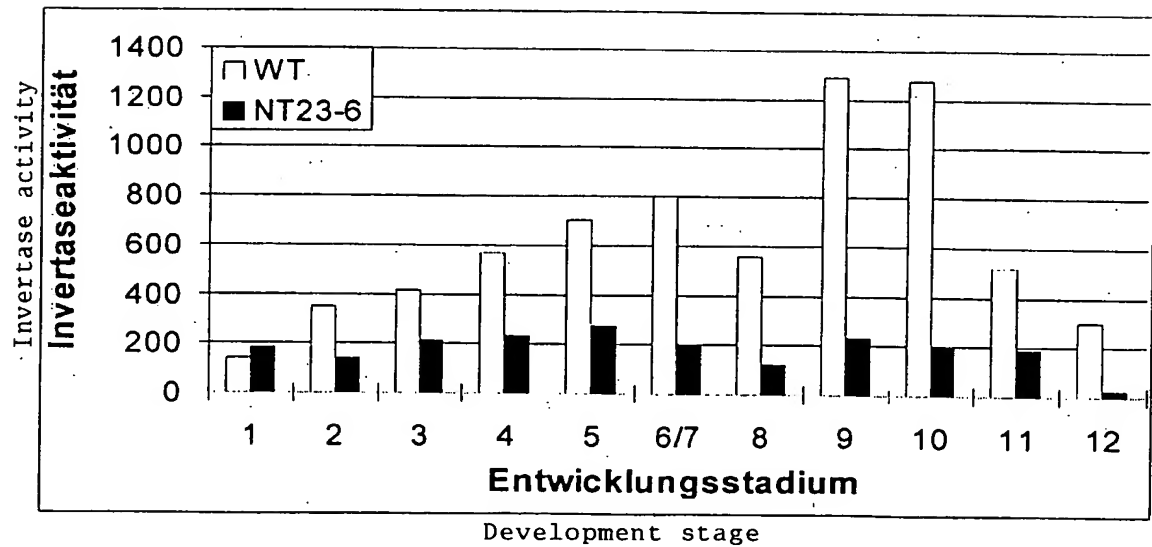


B



Invertase activity in tobacco pollen
Invertase-Aktivität in Tabak-Pollen

C



Extracellular invertase NIN 88 of tobacco pollen is specifically expressed in anthers

Die extrazelluläre Invertase NIN88 von Tabak-Pollen wird spezifisch in Antheren exprimiert

leaves stalks roots sepals petals pistils stamens small flower buds large flower buds new flowers

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Blätter
Stängel
Wurzeln
Kelchblätter
Blütenblätter
Fruchtknoten und Stempel
Staubblätter
Kleine Blütenknospen
Große Blütenknospen
Junge Blüten

Fig. 2

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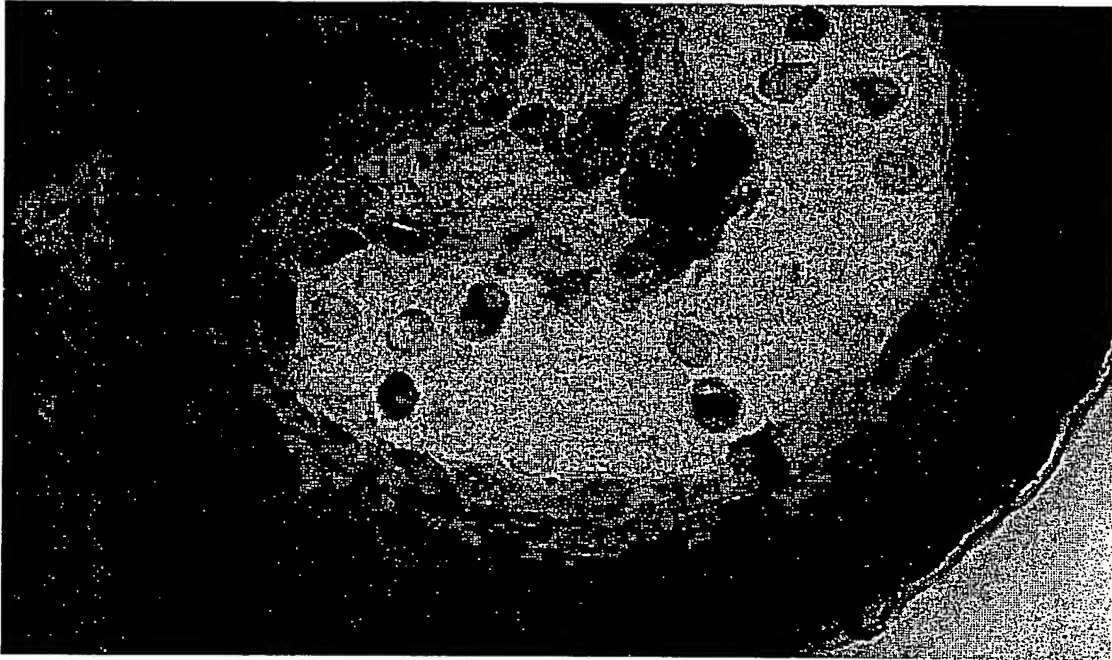
A



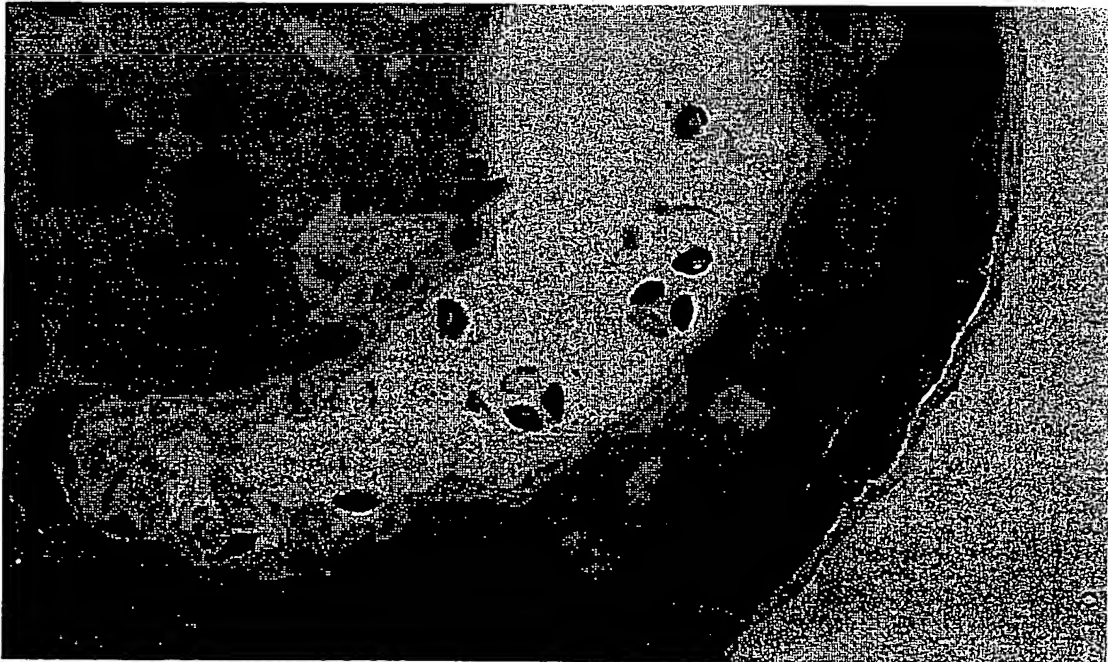
Part
Fig. 3 (Teil 1)

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B



C



Part
Fig. 3 (Teil 2)

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Fig. 4

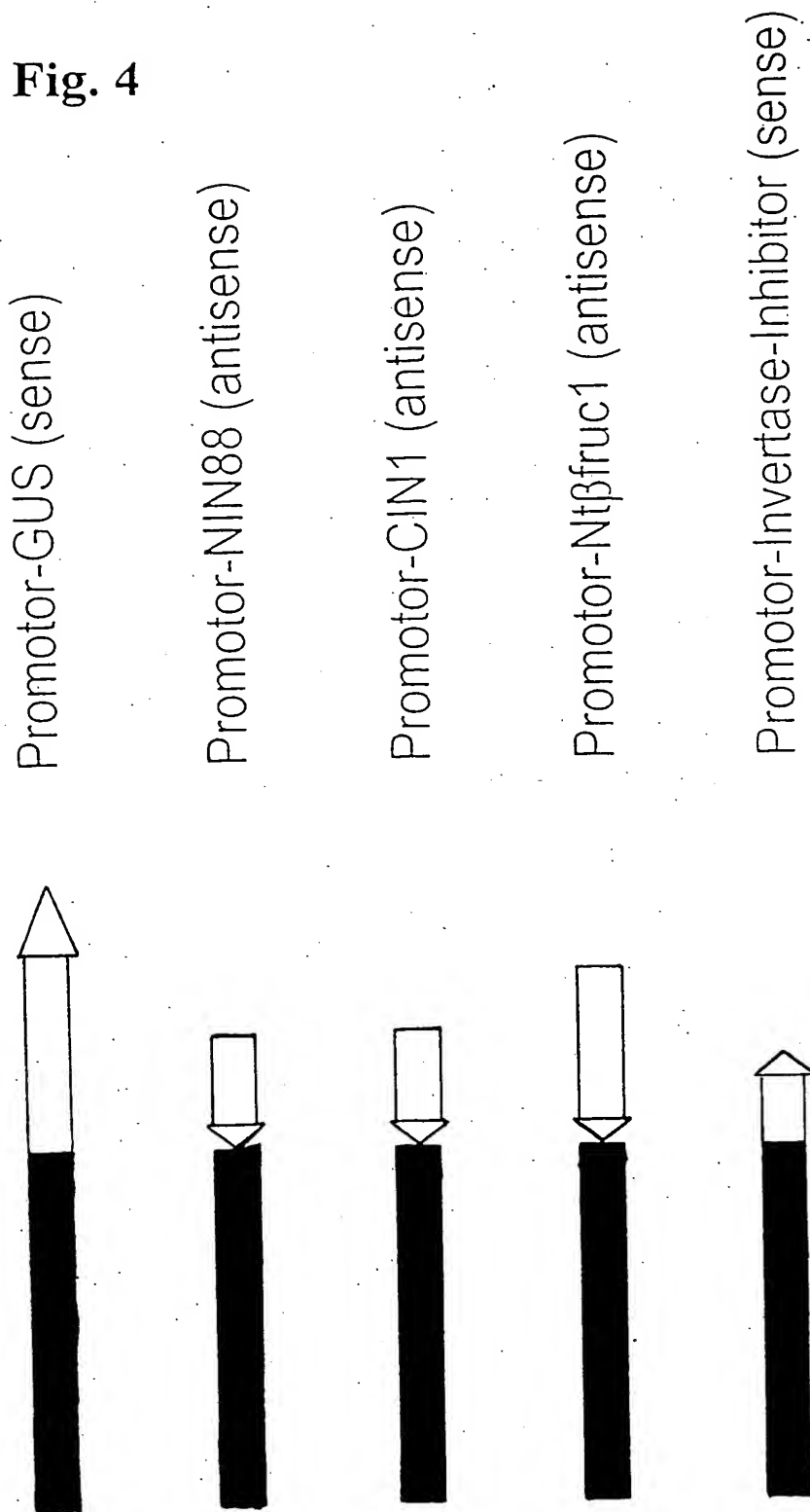


Fig. 5 (Teil 1)

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Promoter-DNA sequence of extracellular invertase NIN 88 from tobacco
 Promotor-DNA-Sequenz der extrazellulären Invertase NIN88 aus Tabak

1	TCTAGAATGA	CGCCACCGGC	CAGGACGGGG	AGTATGATTT	CCCCGAATGT
51	TCGTTCAACT	GCATTGTTAA	AACCTGTTAG	CGTGATGCAG	CCCGGTACTA
101	TCTTATCCTC	GAGTTTCATT	TGTGCAAGTA	CTCGAGGATG	GACAATTCAC
151	GGGCCACTCC	CATCGTCCAC	CATAATGCGT	CTTACATCTG	TATCTAATAT
201	TCGTAAAGTG	ATAACGAGGG	CATCATAGTG	AGGGAAAACC	AAACCGTGGT
251	TATCTGACTT	ATCGAAGATG	ATACTTTCTT	TAAGTTTCTC	GTACCGTTCA
301	TGAGTGATTA	ACTGTTTGAG	CTTGTGGGTT	GTGGCGAACT	TTACGTTGTT
351	GATCGAAACG	TCGTCTCCGC	CCCCGATGAT	AATGTGAATG	GTGCGAGTCG
401	GTAAGGGTGG	TTTCGGCGGT	CCCTGGTGTT	GTTACAGTCC	TCGAGAAAAG
451	TTGGTCCTTC	CTCGGTCACA	CAACAATATT	TTGAGGTGTC	CTTGATGAAG
501	CATGTCCATG	ACCTCTTGTC	TTAGGGCGAT	ACAATCCTCA	GTTTTGTGAC
551	CTCGCTCTTG	GTGGAACTCG	CAGAGGGCAT	CTGATTTTCT	AGTGCTTGGA
601	TCTGACCTCA	TCTTTTGTGG	CCACTTTACT	TTTGGTCCGA	GCTTCTTCAA
651	TGCATAGACT	ATTTCTGAGG	GTGACACACA	AAATTTGTGA	GCGGATAGTA
701	AAGAGGGCAT	ACCTCTCTCG	TTCCGGTGAG	TCCCTGTCCT	TGGCCTAGAT
751	GGGCCCTCTT	CGTAGCGGGA	GAGGGGCATG	ATGGCACTTT	TGACATATGG
801	TTGATCCATT	TCTCGGTTAG	ATCATGGAGC	TGCAAGATCT	CTCTTGGCAT
851	CATTTTGACG	ATCCTTCCTG	GTTTCGGCTT	GTACCGAGGT	CAATCATGTA
901	GTTGGCCCAT	TCAGGTCGTC	TTTCGTCGGCA	CGGGCCTCAG	CACAGTAGGC
951	GTTGTGTATT	TCATCCCAAG	TGGTTGGAGG	ATATTTTATA	AGTTGGTTTA
1001	ACAGTTTCTT	GGTCGCCCTC	GAGCCATTCA	TGTTTCAGCCC	ATTCTGAAA
1051	GTTGCTACAA	CCATTCCTTC	TGATACATTC	GGTAAGGTCA	TCCTTACTCT
1101	GTTGAATCGA	GCGAGGAAGT	CCCTCAATCC	CTCTCCGAGT	GATTGTTTGA
1151	TGGCAAATAT	ATCGTTCACT	CTTGCCCTCCG	CGTTTTTAGC	CCCAACATGG
1201	GCCATTATGA	ACTTGTCGGC	CATCTCTTCG	AATATTTCAA	TGGAGCGCGC
1251	GGGCAGCTGT	GAATACCAAG	TCAATGCTCC	TCCGGTAAGG	GTCTCGCCGA
1301	ACATTTTCAA	CAAGATGGAG	GAGACTTGTT	CTTTGGAGAG	ATCATTGCCC
1351	TTTACCGCAG	TGACATAATG	ATTACATGAT	CTTCGGGGTC	GGTCGTACCA
1401	TCATAAATTT	TCAGATAAGG	TGGCATCTTG	AACGTCTTGG	GTATGGCATA
1451	TGGGGCGGCT	TCATCACTGT	AGGGTTGCTC	GACTAACCAG	CCAGCGTCTC
1501	TTTTTGGAAA	TATTTTGGGG	GCACCCGGTA	TTTTATCGAC	TCTTCTTG
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1651	TGTGAGTGAT	ACCTGTTACT	GAAAGGGGAG	GGTCGTGCTG	TTTGGTCATT
1701	GCTGGTGCAA	TGCAAGTCCT	TGCATTTTCT	CTAAATACCT	CCTGAGTGGG
1751	TTTGTTGAGG	ATGCCGGTCA	GCATATTTGT	CAGCCAAGCT	TCGAGTAGCT
1801	TCTTCACCGC	TGGTGGCGCC	TCTTCCGTTG	TGGACGTGGA	AGCTCCTTTA
1851	CCGCGGGATG	TTGCGATACT	GCTGTGAGGG	AGGGGTGATC	CACTTCGTCTG
1901	GGGAGAGGTG	TTAGGCGTTA	TGCCTTCGCC	TTCTATTTCTG	GAGACCTCAT
1951	TGATGGTGTT	TAAGAGGTTG	GTAGTGAGAT	TGGCCACTGC	CTTCATCCTT
2001	TCTTCTCCCT	TACCTGCCAT	GTCAGATCTG	GGTGTAACAAG	GAAGTAGGAG
2051	CTTCTCTTCT	TCTTTTGTGT	GAAATGTGCC	AGTTATAGAT	CTAAAAGAAA
2101	CTAAAGTTTT	AACTAGACTA	TCCTCACAGA	CGGCGCCAAA	TTGTTTGACC
2151	AAAAAATATA	GACTTTTGAT	TAAATTAATT	AATATTGTAT	GACAAAGGAT
2201	TAAACCTAGT	TAATGATAAT	AACCTCAGAT	CTATAATCAA	TTAACAGCAA
2251	TCACGGTCAT	AGCAGCGTTG	AGAGAAGATT	AAATGTGATG	TYCATTCAAT
2301	ATTTCAAGAT	CATTAATGAT	AGGGGAATAT	CAAGCAATAA	ATAACGATAA
2351	ATGGCATTAA	AGTAAATAAG	GAGAATGATT	CACCAATAT	TGAATGAGGT
2401	GGATGATTCT	TCTTTTGTAC	AATGATGAAT	GATGGGCAAA	TACTAGAATG
2451	TTGGGACCCCT	TCTCGGATCT	AATGAAAAAA	GTATGGAATA	GATAGATAATC
2501	GAATCTCTTT	AGAAAGGTAG	TGATTGTCTT	TTATCTAGAG	AGAAAGTCTG
2551	CTTTTCAAAG	AATATTTTAA	TCAGAGAATA	TTACATCCCC	CTCTCTCCCT
2601	ATCTCTTTTT	CTATTTATAT	GGGACATTCC	TCAATCAATC	CTAAAAGTAC
2651	ATACACCAAG	AATATTCAAT	AAAATATTTT	TTTGAATATT	CTATTATAAA
2701	AACTAGCTGT	TAGCACTCGA	CCTCGGTCGY	TATTGACTAC	TCGGTTACGA
2751	CCCCTGTCTAT	TTACTAATCG	ACCTCGATTA	CATCACTTTC	TACGACTACTG
2801	GCTCATGTCA	AATCTTAATG	AAAGCAGATT	TTGACCCATA	CAATAATATG
2851	ACAAAATTGC	TTCCAAAGAA	AACATGGCTC	TTATAGTGAA	ATATCGTTAG
2901	ACTGTTATAG	AAAGATCTGA	ATTTATTTAT	AAGAATAGTG	TTTTTTTCTT
2951	TTCTTTTTCAT	ATCTAAGGAG	TAAAGCAACC	ATGAATAGAA	AAGGCTTAGT
3001	AACTATATAT	CAAAGGAATG	GTGTTTTTTT	TTTAAATATG	GATAAATAAT

Fig. 5 (Teil 2)

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3051 TGTGAATATA GAAGATTAGA TCAATTAACA AAGGTTATGG TGGAGTGGTA
3101 AGCAGAGGCG GACCTATGTG TTATAGTAAG GGGTCACCCA CTACTAGAAA
3151 TCCGGTAAAG ATCGATCAAA AAACCGACCA ACATTGGTCG GTAATGGCCA
3201 AAAACTGACC AAAACGCGAT CATTTACGTG TGAACGGTAT TTTTATGGTC
3251 GGAAAGGAAT ACCGACCAAA GTTGGTCGGA AATTACCGAC CAACTTTGGT
3301 CGGTCAATTA AATTCAAAAA AAATATTGTA AAAAAAACC GACCAAAGTT
3351 GATCGGTATT TTAATTATGT AATAAAAAGA TTCACTATCT GGGAATCGAA
3401 CCGGGGTCTG TACTATGGCA AGATACTATT CTACCACTAG ACCATTGGTT
3451 CATTTTGT TTAACTGTC TTTTATTTGA TTTATACTCT TTAATTATAT
3501 TTTTGCACGA AAATAACCGA CCAAAGTTGG TCGATTTTAT TAAAAAGTAA
3551 AATTACTTAC CAAAGTTGGT CGATTTTTTT AAATGATCCG CCGAATTAAC
3601 CGACCAATTT TGGTAGGTTT TTTTAATATT AATTTTTTAT TATTTTAATT
3651 GAAAAACTAA CCAAAGTTAG TCGGTTTCTT GAAACATAAA TTTCGCGGGA
3701 CTCAAAAATA GTTCCCGCA TTTTTCGCC AAAGAAAACC GACCAAAGTT
3751 GGTCGGTTTC GTAAAAAATA AAAAAATTTA AAAAAATAT TTTAAAAAC
3801 CGACCAACTT TAGTCGGTTT TTTGGTCGAT TTTTGGACCG ACCAAAGTTG
3851 GTCGGTCGAC CTTGGTCGGT TTTTGCCGAA TTTCTAGTAG TGACCGAACC
3901 CTGTAAGCTT CGGGAGAAAT TTTGTATATG TATATGTGTA TATCCTTAAA
3951 ATGATTAATT TAAAGAACGT GGCACCCTGA ATACTAGAAG CCTTTAGGGG
4001 CACTAGATGA GCAGAATAAC GTGTTCTCGT CGCGTAAAAA TACTTGGATC
4051 CGCCTATGAT GGTAAGTACT TCTTCGTCCT TAATCAGAGG TTTCGACTTC
4101 GAGCTCCAGA TATAAACTAT AGACTCGTCT TTATAGCACC TTTAATAAG
4151 ACTATGACTT CATCTGATTT CTCTATAAAT ACTCCTCAAG CTTTCGGTTC
4201 TTCTCCATTG TTCAGTTTCT TTCTCCACAT CACAGAAGTG AAAACAAAAC
4251 AAGAAGAAGA AGAAGAGAA AAATAAGAG TTTCTGTCAA ATTAAGTCCA
4301 ATAGGGAAAA TG

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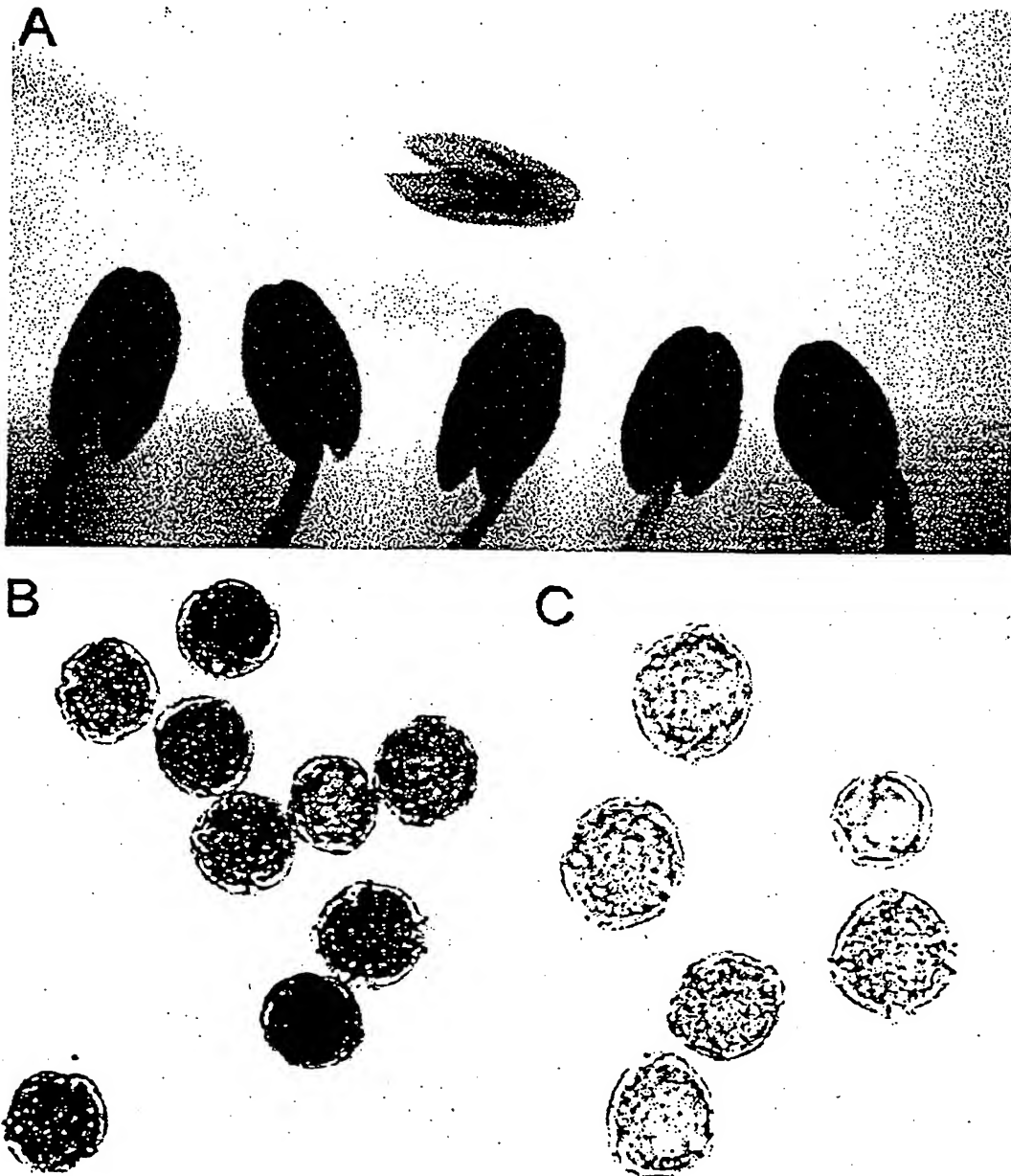
Fig. 6

Expression of a NIN 88 promoter

GUS fusion in transgenic tobacco plants

Expression einer NIN88-Promotor

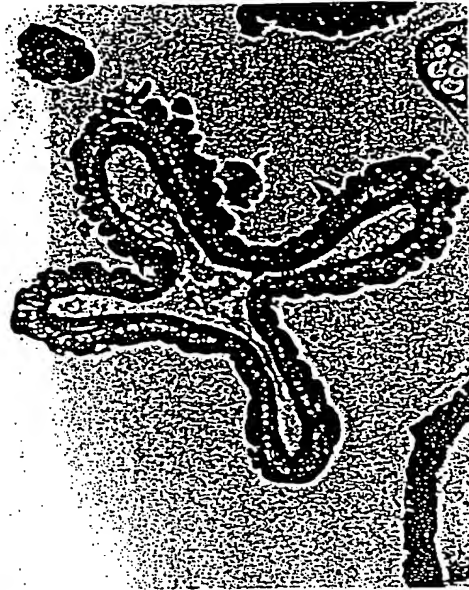
GUS Fusion in transgenen Tabak-Pflanzen



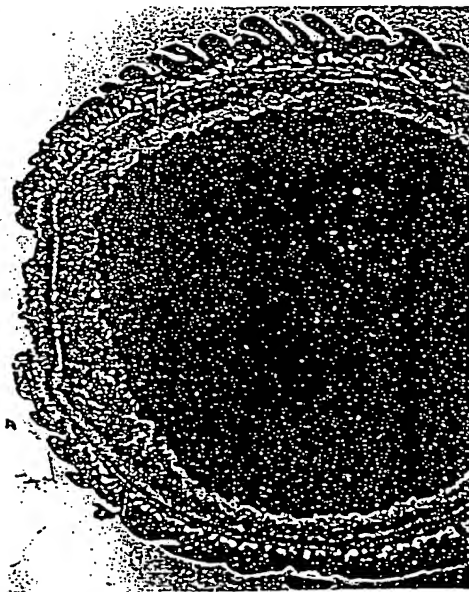
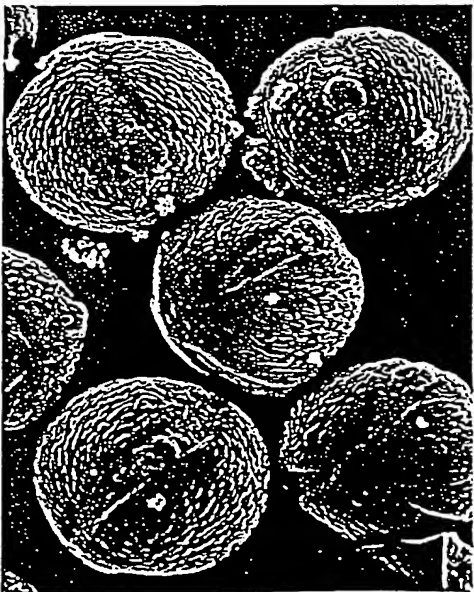
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Fig. 7

NT23-81



wt



REM

(2700x)

TEM

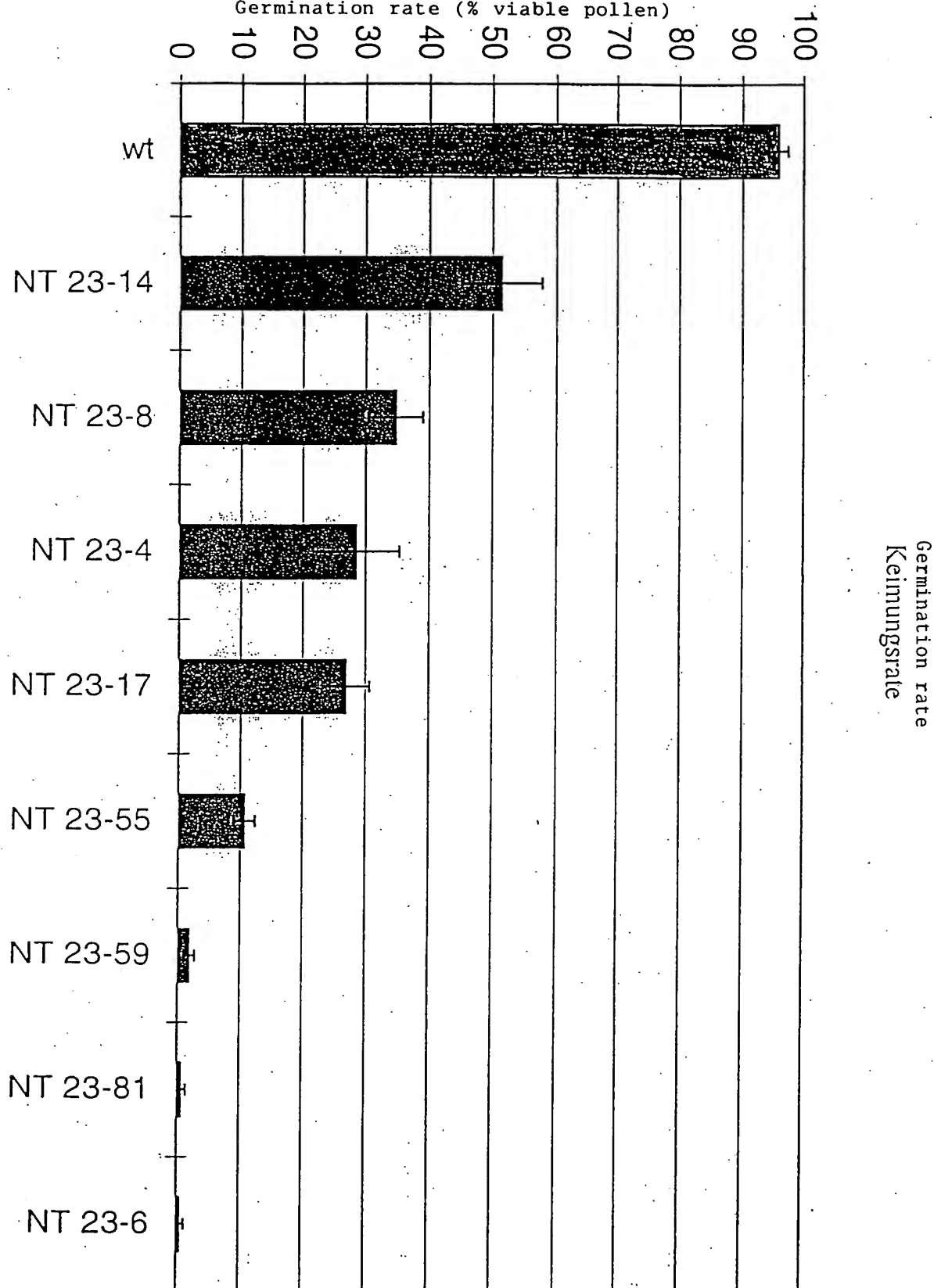
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Fig. 8

Keimungsrate (% von lebensfähigen Pollen)

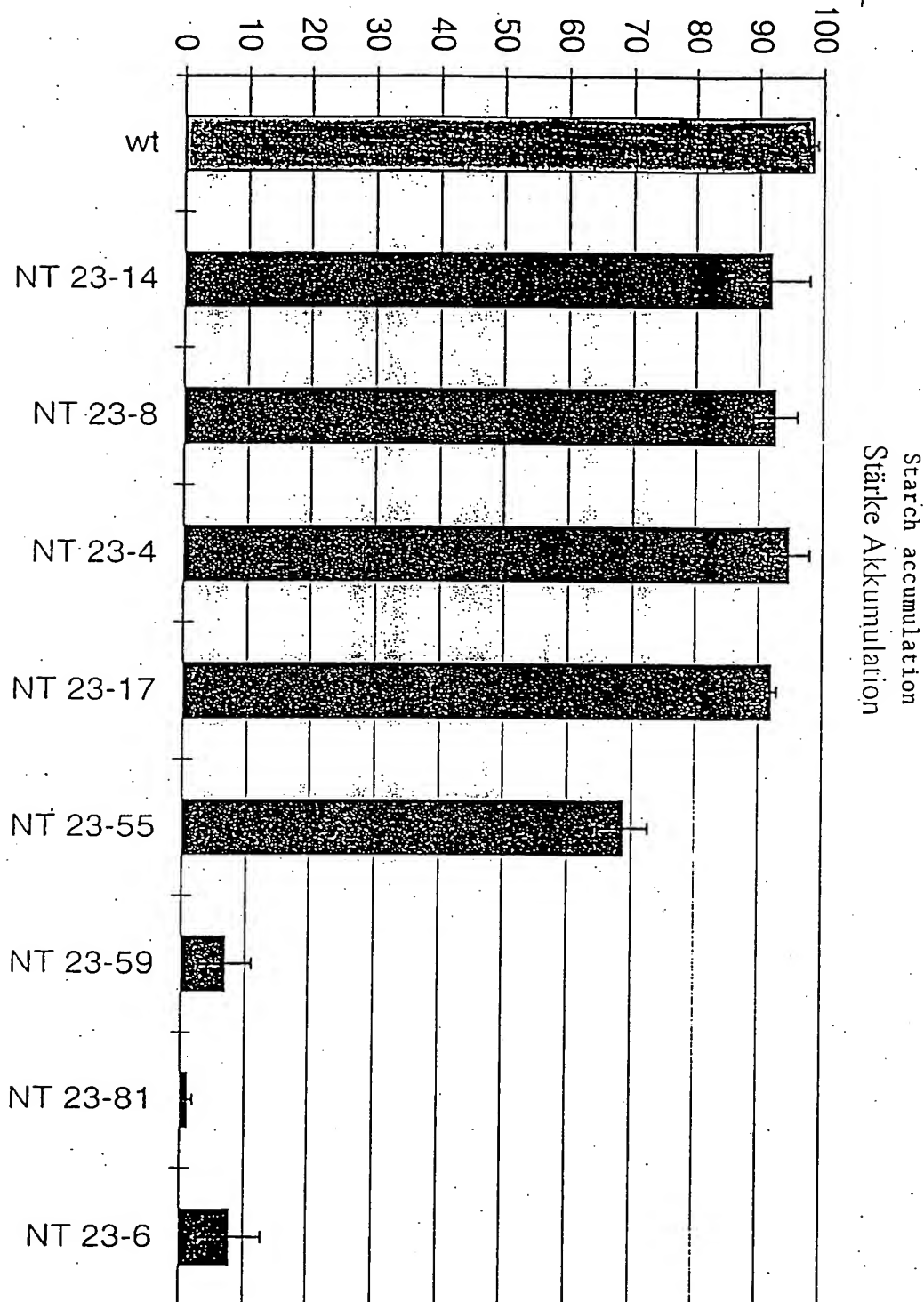
Germination rate (% viable pollen)



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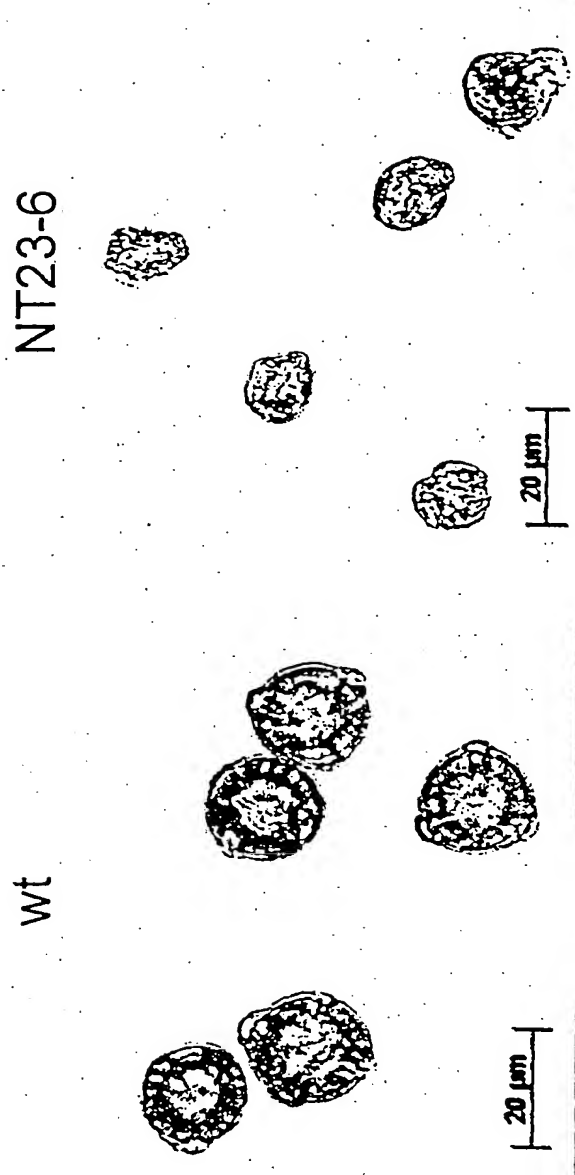
Fig. 9

Starch accumulation (% pollen with positive starch staining)
Stärke Akkumulation (% der Pollen mit positiver Stärkefärbung)



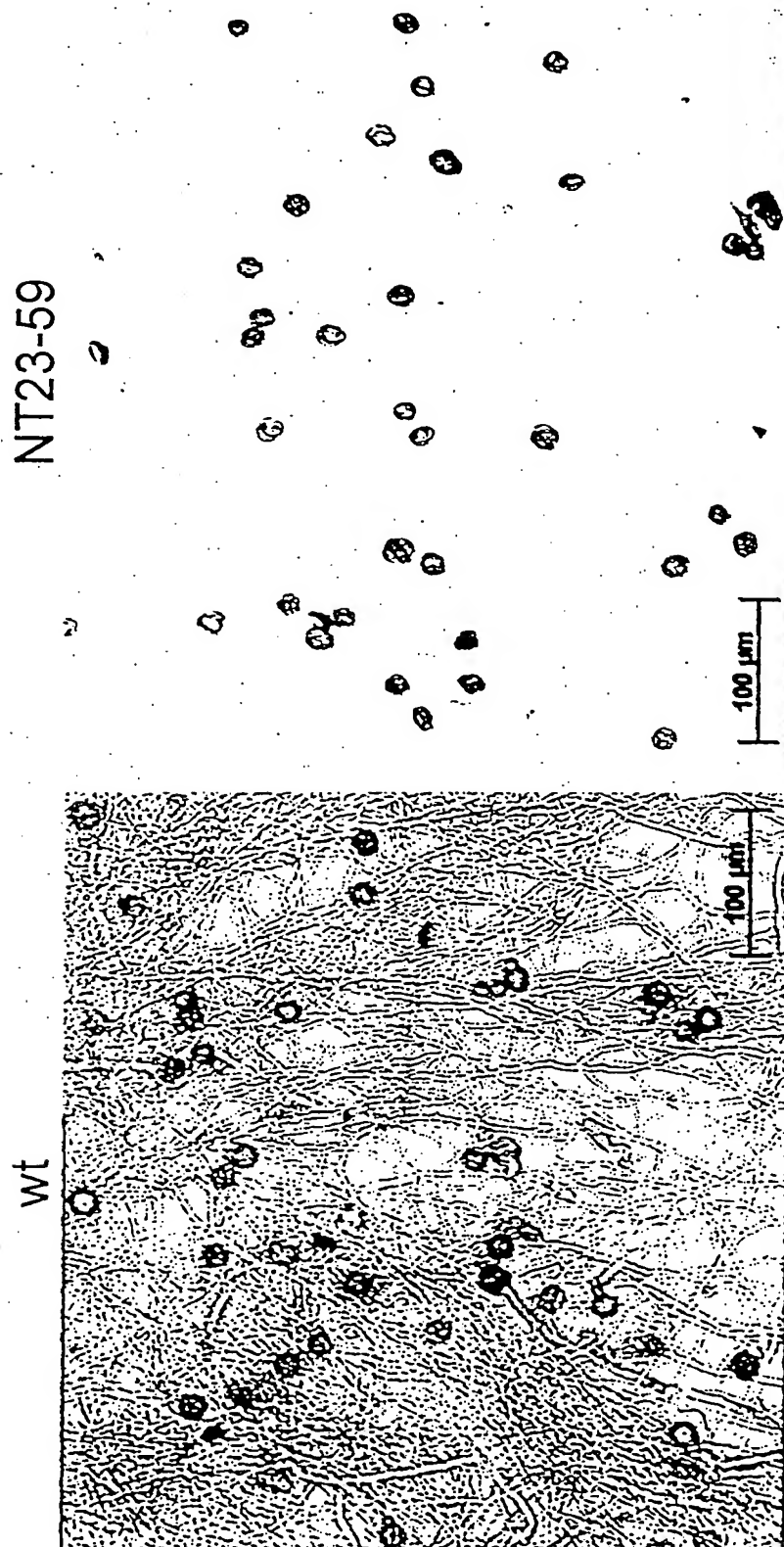
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Fig. 10



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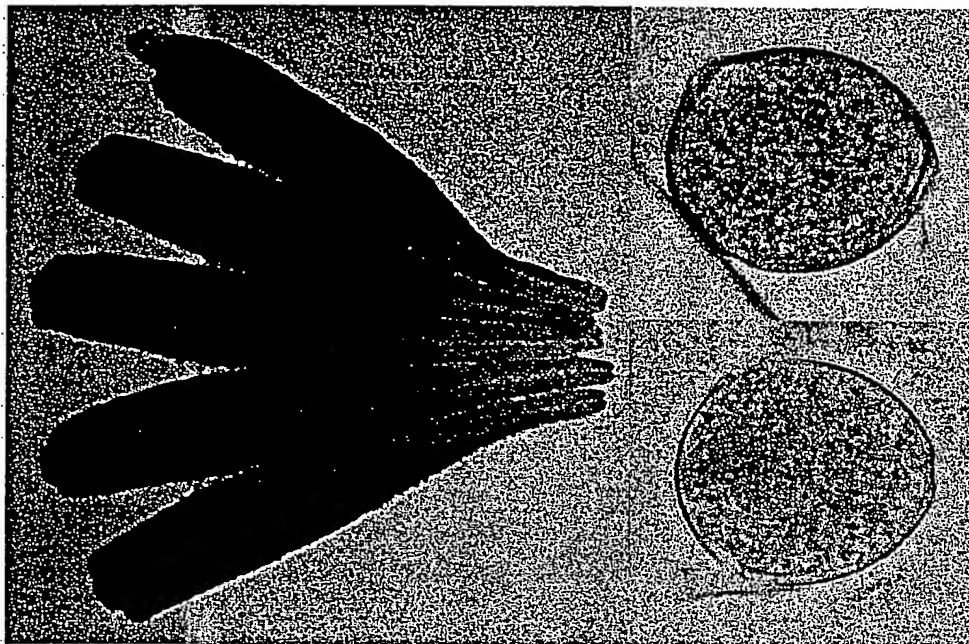
Fig. 11



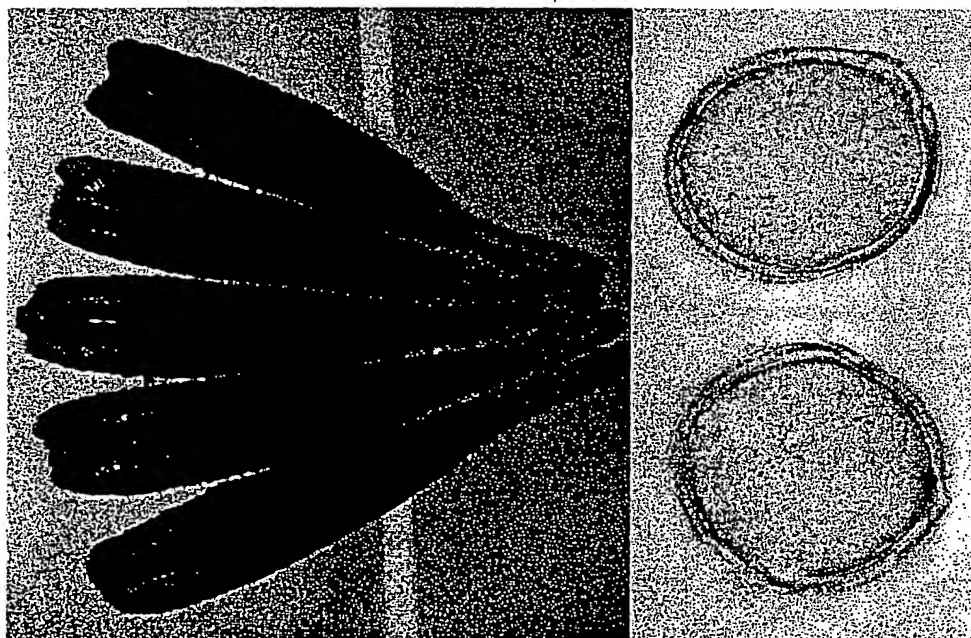
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Fig. 12

LP1-8



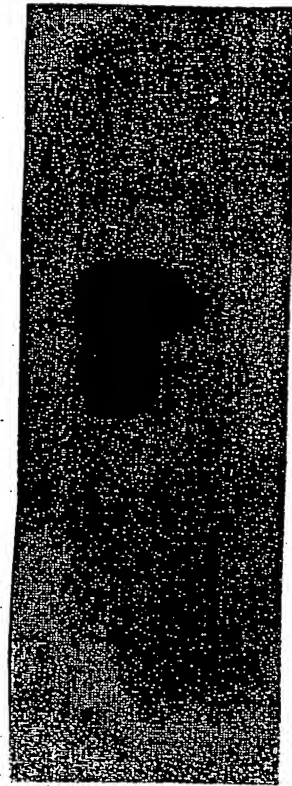
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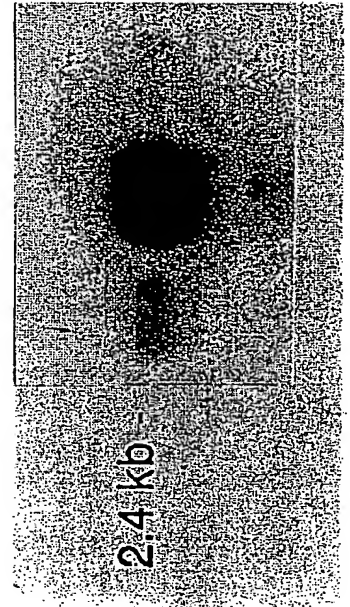
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Fig. 13

Stalks
Seedling roots
Samlingsswurzeln
Wurzeln
Small flower buds
Kleine Blütenknospen
Large flower buds
Große Blütenknospen
Blüten
Flowers
Green fruit
Grüne Früchte
Red fruit
Rote Früchte
A. tumefaciens tumor
A. tumefaciens growths



Gynaeum
Anthers
Petals
Petalen



A

B

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Fig. 14

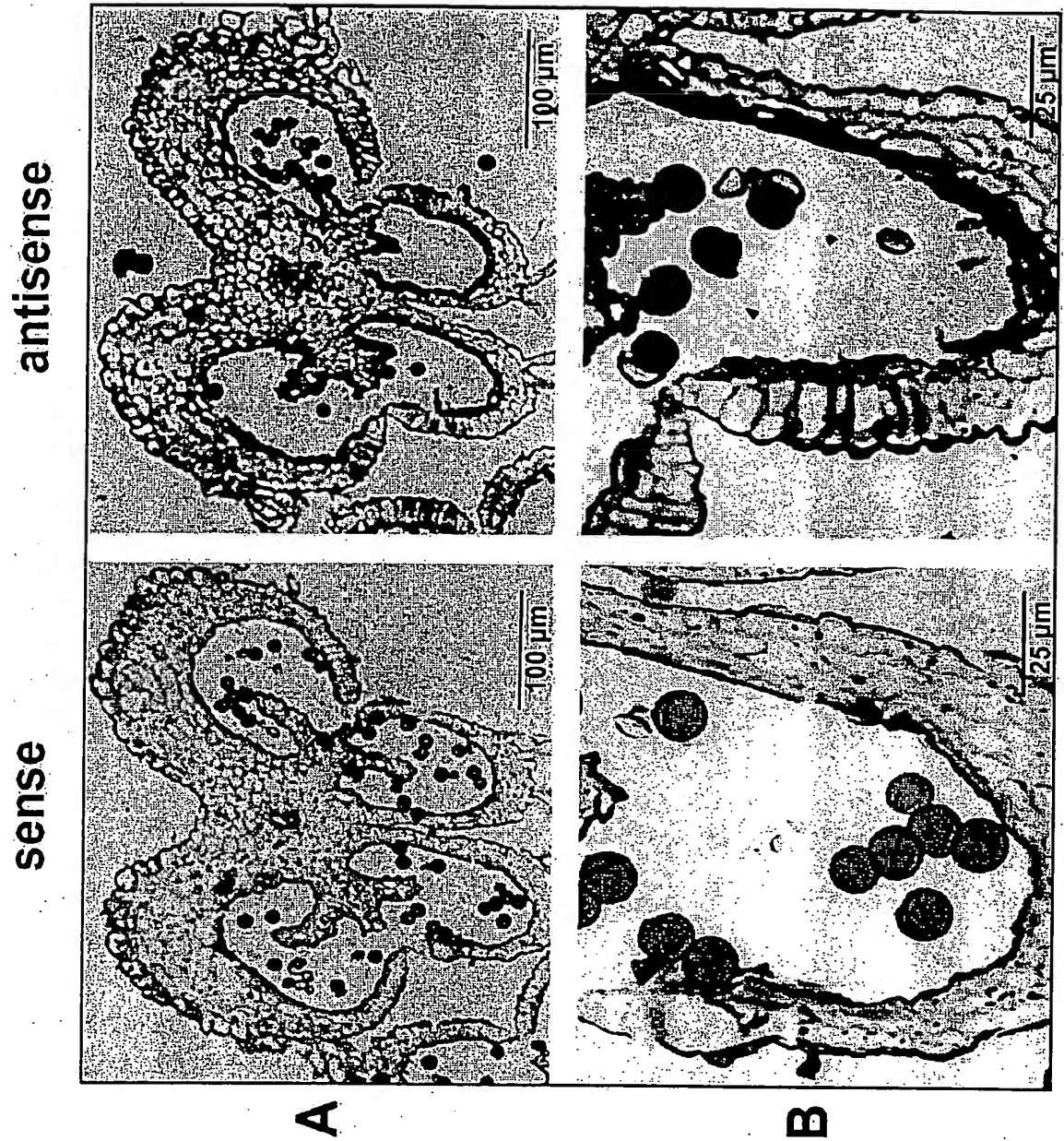


Fig. 15 (Teil 1)

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Genomic sequence of NIN 88
Genomische Sequenz von NIN88

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1  ATGGAGCTGT TTAGAAAAAG CTCTTTTCAT TGTGCTTTGC CAGTTTTCAT
51 ATTATTGGTT TGCTTGTTTA TAATTTTATC TAACTATGTT GTGTTTGCTT
101 TCAATTATGA CGTTTTTACG TGCTTCCAAT CCTCAAAAGA TGCTAATATC
151 ACTTCTAACT ACAGAACTGG TTACCATTTT CAACCCCCCA AGAACTGTAT
201 GAATGGTACG TTTCTCTCCC CTTCCACCCA CCCACCCCCC TCTTCTGTTG
251 TTGCTTTTGA TATGTGTATA TATATATATA TATCCATTTT TTGCTCGGTA
301 TCGGCATTAG GATCCACTAA ATTCCGCATT GAGGGGTAAT TAGGCGTCTA
351 ACAAAGTCAA TTCCATAACT AGGGCTCGAA CCCGAGACTT CCGATTAAAA
401 ATGAAGGAGT ACTTAACACT TATTCTGTAA CATTAAACAA TAGACATCCT
451 ACTCCTCTAA ACTCATTTGT ATTTTAAAAA TATCTATTTT ACCCTCGATC
501 TTATTAGCCT TCATCTACTT TTTTTTTTTT TACTTTTTTTA ATATCACAAT
551 ATTTTCTTAT TCTATGTTAT GAATTTACCT ATAGTGAACA TAAATTTTAA
601 AAAAGGTGAA AAACAATAAT CAATCATATA CTTATTGAAG TTAGAATAAT
651 GAAACAAATG GGCGCAATTA AAATATTAGA ATAACAGATC TTATTAATAT
701 CAATCAAATA AAATTTAGTT CAGTAATATA AAAAAATAAT TAAACATAGA
751 GGTAGATTTT CTAAGAAATT CCTAAAAGAT TATATATTTA TAACTTAGAA
801 AATATTTTGT TAATGAAAAT AAATATTCAA AGATATATAC AGAACAACAA
851 CAACAACCCG ACCTTACCCC TACCCTGGGG TAGAGAGACT GTTTCCGATA
901 GACCCTCGGC TCCCTCCCTC CAAGAACTCC CCACCTTGCC CTTGGGATGA
951 CTCGAAGTCA CAACCTCTTA GTTGGAAGTG GATGGTGCTT ACCACTAGAG
1001 CAACCCGCTC TTGTCCGAAG ATATATACAG AAACATGTAA TAAAGAATAA
1051 AAGAGAAAGT AAAACTTAAA TATATAGATA ATATTAATGT AACGATAAAA
1101 AAGAGTAACG ATAATTGTTT TTGCAAATTC ATAAAGGTAT TATTCTAGTT
1151 AAATTTTATT GAGTTTAAAT TATATAATTT ATCATAAGAT ATTAAAATTG
1201 GTAAAATACT TAGGCTAATG ATAAAATACA TCTTATATAA TATTAAAAAA
1251 AATAGAGGAG AAATTGAAAA TGTCAAGGGT AAAATAGAAA ATGCATATGA
1301 TAGGAGGAGC GAAATATATA TTATTTAGTG TTGGAAGAGT GATTTGATTT
1351 TTAAGATAAA ATTAGGGGAT GAAAATGATT TTTACACTTT AATAGATAGA
1401 TCCTACTGAA ACACGTGTGA GTTCCAAAAG CAAAAAACGA AAAAGGAACC
1451 AGCTCCCTAA TAATGAGTAC TTATTATACA AGTAAATACA ATTAGAGGAC
1501 ACTAATTGCA ACCCCCTACT TGGGAACTGT CGGCCTATTG CTTTAATTAC
1551 TTATACTCTC ACTCCGTTCA CTTTACTTCA TCCAATATTC TAAGTGACAT
1601 TTGGACATAA GAATTGTAAA ATTCCAAAAT AGGAAAAAAA AATACAAGTG
1651 AAAATGTTAT TTGAAATTTA GAGTTACGTT TGGACATGAA TATAATTTTG
1701 GGTTGTTTTT AAAGTTTTGT GAGTGATTTG AGTGAAAATT TTGAAAAACA
1751 GTTTTTTGAA GTTTTTCAAA TTTTCGAAA TTTTCAAAT GCATCTTCAA
1801 ATGAAAATTG AAAATTTTAT GAACAAACGC TGATTTCGAA AAAAAAGTGA
1851 TTTTTTTGTG GAAAAAGAA AAAAATTTCT TATGTCCAAA CGGGCTCTAA
1901 AAATAGATTT TCACTTTTAC TTGTCACTTT TCGCATATCA AGAGAAGACA
1951 ATTTCTTTTT TTCTGTTATA CTCATAGTAT TAATTACTCA TTTCAAATCA

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Part
Fig. 15 (Teil 2)

2001	TTTTTTCAAA	TCCACTAAAA	ATATGTATCA	ATTAATATGG	GTATTATGGT
2051	AAATTATGCA	CTTCATTTAT	TATTTCTTAA	GGAGTGTTCA	AAGTCCGTAG
2101	TAGACAAGTA	AAAGTGAATG	GAGAGAGTAA	TAAATTACAC	CTACTTTCTT
2151	GGAAATACCA	GTTGAGACAT	ACGTAGAACT	TTTGCTAATT	TTTTCTTATT
2201	TTTTCTTAAT	TATATTATAT	TTGTGTGTGA	TATGGGCAGA	AGGGGTGGT
2251	AAGAAGGATC	TTGTCCCCAT	CAGCAACTTA	CAATATTTTA	GGGAAGACAA
2301	ATAATAATTT	TCTGCATTTT	CTAAATTTTT	GTAATTTTAC	TTTTCATTTG
2351	TTTATTATTT	GATTATTCAT	CAATATTAAA	TTATGCAGAT	TTAGTACTCA
2401	CATTCAATTG	TTTATTTACA	ATTTTTTTTA	ATTTTTTTCT	TTATGGTCTT
2451	TCTCGATGCC	TTCAAACATA	CAAATAGACC	CCAATGGTGA	GTCAGAAATT
2501	TTATCTTCTT	TTTATATATA	TAATTTAATC	ACCAATTATT	CATTTATGAT
2551	ACTGATTTTT	CATGTAATTA	CCAACAGCAC	CAATGTATTA	CAATGGAGTC
2601	TATCATCTAT	TCTACCAGTA	CAATCCAAAA	GGATCAACAA	TGAACAACAT
2651	TGTTTGGGCT	CATTCAGTCT	CAAAGACTT	AATCAATTGG	ATTAATTTAG
2701	AGCCTGCAAT	TTATCCATCC	AAACCATTTG	ACAAATATGG	AACATGGTCT
2751	GGTTCAGCAA	CTATTCTCCC	TGGTAACAAG	CCCATTATTT	TGTACACTGG
2801	AGTGGTAGAT	GCCAACATGA	CCCAAGTCCA	AAATTACGCC	GTCCCGGCCA
2851	ACTTATCCGA	TCCATATCTC	CGTGAATGGA	ACAAGCCCGA	TAACAACCCG
2901	TTGATCGTCC	CGGATATCAG	CATCACCAAG	ACCCAATTTT	GTGACCCGAC
2951	AACAGCTTGG	ATGGGCAAAG	ATGGTCATTG	GAGAATTGTG	GTAGGAAGTT
3001	CAAGAAACCG	TGGTGGGTTG	GCAATATTGT	ATAGAAGTAG	GAATTTTCATG
3051	AAATGGATCA	AGGCTGAGCA	TCCACTTCAT	TCATCTGCCA	AAACAGGAAA
3101	TTGGGAATGC	CCAGATTTTT	TTCTGTGTTT	CTTGCAAGGT	TCTAATGGTT
3151	TAGATGCATC	GTACAACGGA	AAATATGTTA	AGTACGTTCT	CAAGAATAGC
3201	CTTCCTGTTG	CCGCGTTTGA	GTACTACACA	ATTGGTACAT	ATGATGCCAA
3251	ACAAGATAGG	TATATTCCAG	ATAACACTTC	AGTCGATGGT	TGGAAAGGAT
3301	TGAGACTTGA	CTATGGCATT	TTCTACGCGT	CTAAGTCGTT	CTACGACCCT
3351	AGTAAGGACC	GAAGAATCGT	GTGGGGTTGG	TCTTATGAAT	TAGATGGTCT
3401	CCCCAATAAT	GAAAACAACA	AAGGATGGGC	CTGGAATTCA	GGCTATCCCG
3451	CGTAAAGTAT	GGCTTGATTT	CAGTGGTAAA	CAATTAGTTC	AATGGCCTAT
3501	TGAAGAATTA	AAAACCTCTA	GAAAGCAAAA	TGTCCGATTG	AGCAACAAAA
3551	GGCTGGATAA	TGGAGAAAAG	ATTGAAGTTA	AAGGAATCAC	AGCGTCGCAG
3601	GTTTAGACTT	TTTTCTAGTT	TTTAATTTGC	AAGCATTTTA	AATAAAATTT
3651	TCTTCACAAG	TTAAGGCTAA	GTTGGGACAT	CTATTGAAAT	TGCCAGGCTG
3701	ATGTTGAAGT	GACATTCTCC	TTCTCTAGCT	TAGACAAGGC	AGAGCCATTT
3751	GATCCTAGTT	GGGCTGATCT	TTATGCACAA	GATGTTTGTG	CAATTAAGGG
3801	TTCAACTGTT	CCAGGTGGGC	TTGGGCCATT	TGGCCTTGCA	ACATTGGCTT
3851	CTCAAACTT	AGAAGAATAC	ACACCTGTTT	TTTTCAGAGT	GTTCAAAGCT
3901	CAGAATTT				

Fig. 16 (Teil 1)

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Sequence of NIN 88 promoter fusioned with NIN 88 in antisense orientation
 Sequenz von NIN88-Promotor fusioniert mit NIN88 in antisense

```

1   TCGAGCCATT CATG TTCAGC CCATTCTGGA AAGTTGCTAC AACCATTTCCT
51  TCTGATACAT TCGGTAAGGT CATCCTTACT CTGTTGAATC GAGCGAGGAA
101 GTCCCTCAAT CCCTCTCCGA GTGATTGTTT GATGGCAAAT ATATCGTTCA
151 CTCTTGCCCTC CGCGTTTTTA GCCCAACAT GGGCCATTAT GAACTTGTCG
201 GCCATCTCTT CGAATATTTC AATGGAGCGC GCGGGCAGCT GTGAATACCA
251 AGTCAATGCT CCTCCGGTAA GGGTCTCGCC GAACATTTTC AACAGATGG
301 AGGAGACTTG TTCTTTGGAG AGATCATTGC CCTTTACCGC AGTGACATAA
351 TGATTACATG ATCTTCGGGG TCGGTCGTAC CATCATAAAT TTTCAGATAA
401 GGTGGCATCT TGAACGTCTT GGGTATGGCA TATGGGGCGG CTTCATCACT
451 GTAGGGTTGC TCGACTAACC GACCAGCGTC TCTTTTTGGA AATATTTTTG
501 GGGCACCCGG TATTTTATCG ACTCTTCTT GGTGTTCTCT CATTTGATCC
551 CGAAGCATTT TATTTTCGTT TTCCATTTCT TCCATTTTCT TCAGAATGGC
601 CGTGAGGGTG TCATTACCTG CATTATTAAT ATTGTGAGTG ATACCTGTTA
651 CTGAAGGGGG AGGGTCGTGC TGT TTGGTCA TTGCTGGTGC AATGCAAGTC
701 CTTGCATTTT CTCTAAATAC CTCCTGAGTG GGTTTGTTGA GGATGCCGGT
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851 CTGCTGTGAG GGAGGGGTGA TCCACTTCGT CGGGGAGAGG TGTTAGGCGT
901 TATGCCTTCG CCTTCTATTT CGGAGACCTC ATTGATGGTG TTTAAGAGGT
951 TGGTAGTGAG ATTGGCCACT GCCTTCATCC TTTCTTCTCC CTTACCTGCC
1001 ATGTCAGATC TGGGTGTACA AGGAAGTAGG AGCTTCTCTT CTTCTTTTTT
1051 GTGAATTGTG CCAGTTATAG ATCTAAAAGA AACTAAAGTT TTAAC TAGAC
1101 TATCCTCACA GACGGCGCCA AATGTTTGA CCAAAAATA TAGACTTTTG
1151 ATTA AATTAA TTAATATTGT ATGACAAAGG ATTAACCTA GTTAATGATA
1201 ATA AACTTCAG ATCTATAATC AATTAACAGC AATCACGGTC ATAGCAGCGT
1251 TGAGAGAAGA TTAATGTGA TGTTnCATTC AATTTTCAAG ATCATTAATG
1301 ATAGGGGAAT ATCAAGCAAT AAATAACGAT AAATGGCATT AAAGTAAATA
1351 AGGAGAATGA TTCACCCAAT ATTGAATGAG GTGGATGATT CTTCTTTTTG
1401 ACAATGATGA ATGATGGnCA AATACTAGAA TGTTGGGACC CTTCTCGGAT
1451 CTAATGAAAA AAGTATGGAA TAGTAGATAA TCGAATCTCT TTAGAAAGGT
1501 AGTGATTGTC TTTTATCTAG AGAGAAAGTC TGCTTTTCAA AGAATATTTT
1551 TATCAGAGAA TATTACATCC CCCTCTCTCC CTATnTCTTT TTCTATTTAT
1601 ATGGGACATT CCTCAATCAA TCCTAAAAGT ACATACACCA AGAATATTCA
1651 ATAAAATATT TTTTGAATA TTCTATTATA AAAACTAGCT GTTAGCACTC
1701 GACCTCGGTC GnTATTGACT ACTCGGTTAC GAGCCCTGTC ATTTACTAAT
1751 CGACCTCGAT TACATCACTT TCTACGATAC TGCTTCATGT CAAATCTTAA
1801 TGAAAGCAGA TTTTGACCCA TACAATAATA TGACAAAATT GCTTCCAAAG
1851 AAAACATGGC TCTTATAGTG AAATATCGTT AGACTGTTAT AGAAAGATCT
1901 GAATTTATTT ATAAGAATAG TGTTTTTTTC TTTTCTTTTC ATATCTAAGG
1951 AGTAAAGCAA CCATGAATAG AAAAGGCTTA GTAAC TATAT ATCAAAGGAA
2001 TGGTGTTTTT TCTTTAAATA TGGATAAAAA TTTGTGAATA TAGAAGATTA
2051 GATCAATTAA CAAAGGTTAT GGTGGAGTGG TAAGCAGAGG CGGACCTATG

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Part
Fig. 16 (Teil 2)

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2101	TGTTATAGTA	AGGGGTCACC	CACTACTAGA	AATCCGGTAA	AGATCGATCA
2151	AAAAACCGAC	CAACATTGGT	CGGTAATGGC	CAAAAACCTGA	CCAAAACGCG
2201	ATCATTTACG	TGTGAACGGT	ATTTTTATGG	TCGGAAAGGA	ATACCGACCA
2251	AAGTTGGTCG	GAAATTACCG	ACCAACTTTG	GTCGGTCAAT	TAAATTCAAA
2301	AAAAATATTG	TAAAAAATAA	CCGACCAAAG	TTGATCGGTA	TTTTAATTAT
2351	GTAATAAAAA	GATTCACTAT	CTGGGAATCG	AACCGGGGTC	TGTACTATGG
2401	CAAGATACTA	TTCTACCACT	AGACCATTGG	TTCATTTTGT	TTTAAGACTG
2451	TCTTTTATTT	GATTTATACT	CTTTAATTAT	ATTTTTTGCAC	GAAAATAACC
2501	GACCAAAGTT	GGTCGATTTT	ATTAAAAAGT	AAAATTACTT	ACCAAAGTTG
2551	GTCGATTTTT	TTAAATGATC	CGCCGAATTA	ACCGACCAAT	TTTGGTAGGT
2601	TTTTTTAATA	TTAATTTTTA	TTTATTTTAA	TTGAAAAACT	AACCAAAGTT
2651	AGTCGGTTTC	TTGAAACATA	AATTTTCGCG	GACTCAAAAA	TAGTTTCCCG
2701	CATTTTTGCG	CCAAAGAAAA	CCGACCAAAG	TTGGTCGGTT	TCGTAAAAAA
2751	AAAAAAATTT	TAAAAAATAT	ATTTTAAAAA	ACCGACCAAC	TTTACTCGGT
2801	TTTTTGGTCG	ATTTTTTGAC	CGACCAAAGT	TGGTCGGTCG	ACCTTGGTCG
2851	GTTTTTGCCG	AATTTCTAGT	AGTGACCGAA	CCCTGTAAGC	TTCCGGGAGAA
2901	ATTTTGTATA	TGTATATGTG	TATATCCTTA	AAATGATTAA	TTTAAAGAAC
2951	GnnGCACCCT	GAATACTAGA	AGCCTTTAGG	GGCACTAGAT	GAGCAGAATA
3001	ACGTGTTCTC	GTCGCGTAAA	AATACTTGGA	TCCGCCTATG	ATGGTAAGTA
3051	CTTCTTCGTC	CTTAATCAGA	GGTTTCGACT	TCGAGCTCCA	GATATAAACT
3101	ATAGACTCGT	CTTTATAGCA	CCTTTTAATA	AGACTATGAC	TTCATCTGAT
3151	TTCTCTATAA	ATACTCCTCA	AGCTTTCGGT	TCTTCTCCAT	TGTTCAAGTTT
3201	CTTTCTCCAC	ATCACAGAAG	TGAAAACAAA	ACAAGAAGAA	GAAGAAGAAG
3251	AAAAATAAAG	AGTTTCTGTC	AAATTAAGTC	CAATAGGGAA	AATGGAGCTG
3301	TTTGATCCC	CGTTTTTCATT	ATTGGGGAGA	CCATCTAATT	CATAAGACCA
3351	ACCCACACG	ATTCTTCGGT	CCTTACTAGG	GTCGTAGAAC	GACTTAGACG
3401	CGTAGAAAAT	GCCATAGTCA	AGTCTCAATC	CTTTCCAACC	ATCGACTGAA
3451	GTGTTATCTG	GAATATACCT	ATCTTGTTTG	GCATCATATG	TACCAATTGT
3501	GTAGTACTCA	AACGCGGCAA	CAGGAAGGCT	ATTCTTGAGA	ACGTACTTAA
3551	CATATTTTCC	GTTGTACGAT	GCATCTAAAC	CATTAGAACC	TTGCAAGGAA
3601	ACAGGAAAAA	AATCTGGGCA	TTCCCAATTT	CCTGTTTTTG	CAGATGAATG
3651	AAGTGGATGC	TCAGCCTTGA	TCCATTTTCAT	GAAATTCCTA	CTTCTATACA
3701	ATATTGCCAA	CCCACCACGG	TTTCTTGAAC	TTCCTACCAC	AATTCTCCAA
3751	TGACCATCTT	TGCCCATCCA	AGCTGTTGTC	GGGTCAAGAA	ATTGGGTCTT
3801	GGTGATGCTG	ATATCCGGGA	CGATCAACGG	GTTGTTATCG	GGCTTGTTCC
3851	ATTCACGGAG	ATATGGATCG	GATAAGTTGG	CCGGGACGGC	GTAATTTTGG
3901	ACTTGGGTCA	TGTTGGCATC	TACCACTCCA	GTGTACAAAA	TAATGGGCTT
3951	GTTACCAGGG	AGAATAGTTG	CTGAACCAGA	CCATGTTCCA	TATTTGTCAA
4001	ATGGTTTGGA	TGGATAAATT	GCAGGCTCTA	AATTAATCCA	ATTGATTAAG
4051	TCTTTTGAGA	CTGAATGAGC	CCAAACAATG	TTGTTTCATTG	TTGATCCTTT
4101	TGGATTGTAC	TGGTAGAATA	GATGATAGAC	TCGAG	

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 Part
 Fig. 17 (Teil 1)

1 CATAATCAAA TGTGTGGTCT TATGTAGAAC TAATATTTGG TAATATTAGG
 51 CAAGTTGTTA TGTGACTTAT TTTATTCAAA AATATAATAA GAAGTTCAAA
 101 GAGAAGAGTA CAAGTAAGTA AGTAAGCAGA GACGAATCCT GGATTTAAAG
 151 GGTCTGGCTA TATTAATGTT TTTTAAATTT AAGCATTAGC GATTTCGCCTT
 201 GCAAGTAATC GATAGGACAA AAGTTTTACC TTACTAATTC TATTGAGGCA
 251 CCAAATCCCT ATGAAAAAGC ATGTAAAATA TGAGAAGACG AAAGAATTAA
 301 ATAGGTTATA ATTATTGTAT AATTTATAAC AACTTTTATG ATAATATTAC
 351 AAATAAGAAT ATCGAATATT TAATTAATGA CGAACTATAA AAGCAAAGAA
 401 GGAAGGATGA GCTTCCAAAA ACAATCGCAA ATGAATAAAG ATGCCCAAAA
 451 TAGAGTAACC TAACGAAGTC GATACTTCCA TTCATAATCA AATCTGTTCA
 501 AAAACACTTG ATGGGTTATT TTTAACTTTA AGAGATGTAT CATATCGTCT
 551 CTTATTATTC CTTTAGGGCT ATTCGCCGTA GGAATAAAAT TTATATGATC
 601 AAATTTACAG TTATATAAAT AATGTGAAGA AAAAAGTTAT ACTTTTCAAG
 651 GTAACAAGAA ATCATGTTTT TTTTACGCCT TCGTGGAGAC TACTTCCTCG
 701 TAACAAAAAA TTAACATTTT AAGTGGCGAC TCTAAAACT CGTGGCCAGT
 751 ATATTAGTCG CCATTAAACA TTATTTTAA TCATGAGTTC TTTTCTTTTT
 801 TAATCTTTTT TTAAGGTCAA ATTTACCACT TTATCTTATT TATTTAAATT
 851 GAAAAATCCC AAATTTTGCA TTATTTTTTT GAATTCCTTT TTTTTTTACA
 901 CACTCAAAAA GTCAAAACAT TAAAAAAGC AAATAGCAAA TTAAATGGCA
 951 AAAGACTTGT TGTAACAAAA AAAAAATAGT AAAACAGACT CATAAAAGGT
 1001 AACATAACC AACAAATCAC ACAAATTGT AGATAAATAT TATGCAAACA
 1051 AATAAAAATT AATAATCCAA TCCATTTATT TATTTTTTTA AAAAAACCT
 1101 AAATTAATC TCCATCTTTC AATCAAAAAC AAAGTCTACC CATTTTTTTC
 1151 ACTATAAATA CTCTTCATAA TTTTCATTTG TTCTTCATTC CCATGTTTCT
 1201 TTTCTCCTTA TCCAAAAAA AAAAAATTAA AAAAAATTAT TTAGATTAAA
 1251 TATCACTATC TGTCAAAGCC CAATCATTA AATAAAATAA AAATTATGGA
 1301 TTATTCATCT AATAAAAGTT CTCGTTGGGC TTTGCCAGTT ATCTTAGTTT
 1351 GCTTTTTTGT AATTTTATTA TCCAATAATG TTGTTTTTGC TTCTCATAAA

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Part
Fig. 17 (Teil 2)

1401 GTTTTTATTC ACTTGCAATC TCAAAATGCC GTAAATGTTT ATACTGTTCA
1451 TCGAACTGGT TATCATTTTC AGCCCGAAAA ACATTGGATC AATGGTATGT
1501 TTATTCCTTT TTTTCGTCTT TTTTTTATAT ATATATATAT AATAAAACGA
1551 ACATGTTGTG TTTAGTCTAG ATTTAATACT AGTGATTTTT TTGACGCTAA
1601 CAAATAATCG AGTACTCACC ATTTGTCAAT AGATACATTG ACATGTATTA
1651 GTATGATTTT CGTCTTTTTT CGTTGTTTCT AATATTATTT AATCTTCACT
1701 AATTTTTTTA TTTTCTTTG AATGATGTCT CTTGGTCAAA ACATACAATA
1751 GATCCCAATG GTAAGTTAAC TATATTTTGG TATATTTTTT AAATTTATTT
1801 TATTCTTATT ATATAATATA GGGAAAAAAG GATAAATATA TCCCCGAAC
1851 ATTATAAATA GTATGCACCA GTATCCTCTG TTATACTTTA GAGATATTTT
1901 TGCCGTCAAA AAAC TAGAAC ACATATATCC TTTATTTATC CCGATATCGA
1951 ATCGATTGTA CCACGAGTGA AGGGTATAGC TCTAGTTTTG GACGGTAGGG
2001 CACCTAAAGT AGACGAAGA